



August 21, 2012

PENTAIR RESIDENTIAL FILTRATION LLC
GARTH BABCOCK
5730 N. GLEN PARK ROAD
MILWAUKEE WI 53209

Re: Description: WATER TREATMENT DEVICE - POU ACTIVATED CARBON
Manufacturer: PENTAIR RESIDENTIAL FILTRATION LLC
Product Name: PENTAIR
Model Number(s): GE GDBF-2000 USING THE GSBF-1250R AND GSBF-1750R CARTRIDGES
Product File No: 20120309

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of August 2017.

This approval is contingent upon compliance with the following stipulation(s):

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturer's published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 267-9787.
- If this approved device is modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
- These devices will only reduce the concentration of volatile organic chemicals at water outlets that are served by the devices. There are dermal (skin) absorption and inhalation exposure risks associated with volatile organic chemicals. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to volatile organic chemicals will remain possible at unprotected outlets, particularly hot water outlets (e.g. bathing, showering, clothes washing or dish washing).

If, by way of reputable water analyses, a water supply is known to contain unsafe levels of volatile organic chemicals, then all the water entering the residence must be treated at the point-of-entry using an approved water treatment device to address all potential routes of exposure.

- If the treatment components of this device (e.g., replacement cartridge) are replaced with anything other than those originally approved for use with this device, then this approval shall immediately be considered null and void. This approval does not cover the use of this filter cartridge in any other housing/pressure vessel.

- These devices will only reduce the concentration of cysts/oocysts at water outlets that are served by the devices. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to cysts/oocysts will remain possible at unprotected outlets.

The presence of cysts/oocysts strongly suggests that other pathogens (e.g. bacteria, virus) may also be present.

If, by way of reputable water analyses, a water supply is known to contain cysts/oocysts, then all the water entering the residence must be treated at the point-of-entry, using an approved water treatment device, to address all potential routes of exposure thereby providing a biologically safe water supply.

Based on testing data submitted to and reviewed by the department, this approval recognizes that this plumbing product will reduce the concentration of contaminants as specified on pages 1 through 4 of this letter.

TABLE 1 OF 4
PRODUCT FILE NUMBER 20120309
HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES

Flow Rate: 2.3 liters per minute (lpm) [0.6 gallons per minute (gpm)]

Capacity: 2,839 liters (l) [750 gallons (gals.)]

Tested Contaminant	Influent challenge level µg/l (ppb)
Atrazine	9.0 ± 10%
Lindane	2.0 ± 10%

Other conditions: the contaminant reduction performance data for table 1 of 4 was generated by testing conducted in accordance with NSF *International* Standard 53. To comply, the device must reduce the influent Atrazine concentrations such that all effluent samples are ≤ 3.0 µg/l;; the device must reduce the influent Lindane concentrations such that all effluent samples are ≤ 0.2 µg/l.

µg/l = micrograms per liter are equivalent to parts per billion (ppb)
± = plus or minus

≤ = less than or equal to

TABLE 2 OF 4
PRODUCT FILE NUMBER 20120309
HEALTH EFFECTING MICROBIOLOGICAL CONTAMINANT REDUCTION CAPABILITIES

Flow Rate: 2.3 lpm (0.6 gpm)

Capacity: dependent on the type and quantity of particulate matter present in the influent water, the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge Level (#/ml)
C. parvum oocysts	≥ 50,000

Other conditions: the contaminant reduction performance data for table 2 of 4 was generated by testing conducted in accordance with NSF *International* Standard 53. To comply, the device must reduce at least 99.95 percent of the influent C. parvum oocysts to qualify the device for the reduction of oocysts of Cryptosporidium and Toxoplasma and cysts of Giardia and Entamoeba.

µm = micrometer
≥ = greater than or equal to

#/ml = number per milliliter

TABLE 3 OF 4
PRODUCT FILE NUMBER 20120309
HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES

Flow Rate: 2.3 lpm (0.6 gpm)

Capacity: 2,839 l (750 gals.) for lead and mercury reduction. For asbestos reduction, dependent on the type and quantity of particulate matter present in the influent water, the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge Level (mg/l) ^{*,1}
Asbestos fibers	10 ⁶ to 10 ⁷ F/l
Lead (Pb ⁺²) ²	0.15 ± 10%
Mercury (Hg ⁺²) ²	0.006 ± 10%

Other conditions: the contaminant reduction performance data displayed for table 3 of 4 was generated by testing conducted in accordance with NSF *International* Standard 53. To qualify for asbestos reduction, the device must reduce the influent asbestos fiber concentrations by ≥ 99%; the asbestos reduction is only for fibers exceeding 10 µm in length. To qualify for lead reduction, the devices must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.01 mg/l. To qualify for mercury reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.002 mg/l.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)
µm = micrometers
± = plus or minus

F/l = fibers per liter
* = unless otherwise indicated
2 = metals are tested at pH 6.5 and pH 8.5

TABLE 4 OF 4
PRODUCT FILE NUMBER 20120309
AESTHETICS EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES

Flow Rate: 2.3 lpm (0.6 gpm)

Capacity: 2,839 l (750 gals.) for free chlorine reduction performance. For particulate reduction, the capacity is dependent on the type and quantity of particulate matter present in the influent water, the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge Level (mg/l)
Chlorine (free)	2.0 ± 0.2
Particles (0.5 - < 1.0 µm)	≥ 10,000 #/ml

Other conditions: the contaminant reduction performance data displayed for table 4 of 4 was generated by testing conducted in accordance with NSF *International* Standard 42. To qualify for free chlorine reduction, the device must reduce the influent challenge concentrations by ≥ 50%; meeting the free chlorine reduction requirements also qualifies the device for the reduction of aesthetic, organic, taste and odor reduction (e.g. geosmin, methylisoborneol); this does not include hydrogen sulfide. To qualify for particulate reduction, the device must reduce the influent particulate concentrations by ≥ 85%.

mg/l = milligrams per liter are equivalent to parts per million (ppm)
* = unless otherwise indicated
± = plus or minus
≥ = greater than or equal to

µm = micrometers
#/ml = particles per milliliter
< = less than

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This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter
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Department of Safety and Professional Services
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GWS:gws